

**Description of *Trophon iarae* n.sp., a new muricid from  
southern West Atlantic (Gastropoda: Muricidae)  
with illustration of related species**

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**ABSTRACT.** *Trophon iarae* n.sp. is described and compared with *T. plicatus* (Lightfoot, 1786), *T. acanthodes* Watson, 1883, *T. varians* (d'Orbigny, 1841), and *T. geversianus* (Pallas, 1774).

## INTRODUCTION

Some time ago, I received from Pedro H. Kahvedjian, a shell collected off Uruguay. After comparison with specimens in my collection, I identified it as a form of *Trophon plicatus* (Lightfoot, 1786). Recently, Prof. Emily Vokes asked if I would agree to study, and eventually to describe a *Trophon* sp. from Brazil. The specimen was sent to her by Prof. E. Rios, but because of time constraints, she delayed its study. I accepted of course, always being very excited by new, and unusual material.

The specimen I received is gorgeous, and at first sight, I also felt it was undescribed. Moreover, when comparing it with my reference material, I came back to the unusual form of *T. plicatus* from Uruguay, and immediately I saw that it was the same species. The specimen from Uruguay is smaller, somewhat damaged, and dead taken. However, now, with the help of the new material, it is possible to separate it definitively from the other Magellanic species of *Trophon*.

Another specimen of *T. iarae* n.sp. was illustrated by CERNOHORSKY (1977: 117, fig. 18), as *T. plicatus*, from the Falkland Islands.

The radula of the Brazilian specimen was illustrated by CALVO (1987: 136, fig. 99), and wrongly identified (as I initially did), as *T. plicatus*. However, in her table of dimensions, CALVO (1987: 174), cites that specimen as C = 50 mm, L = 35 mm (C = comprimento = length; L = largura = width). This does not agree with the dimensions of the shell. Nevertheless, it was confirmed by Prof. Rios that the radula illustrated by Calvo was extracted by her from that shell, so that I conclude the dimensions given by Calvo were probably erroneously taken from another shell.

## SYSTEMATIC ACCOUNT

Genus *Trophon* Montfort, 1810

Type species by original designation: *Murex magellanicus* Gmelin, 1791 (= *Buccinum geversianum* Pallas, 1774); Recent, Magellanic region.

*Trophon iarae* n.sp.

Figs 1-5

### Type material.

Holotype n° 6731, Museu Oceanográfico "Prof. Eliézer de C. Rios", 74.6 X 61 mm; 1 paratype coll. R. Houart, 53.8 X 39.4 mm.

### Type locality.

Off Albardão, RS, Brazil, collected by fishing boat "Pescal 2", C. Pontes, 1961, in 55 m.

### Other localities.

Off Uruguay, by fishermen (paratype R. Houart); East of Lively Id, E Falkland Islands, in 79 m (CERNOHORSKY, 1979).

### Distribution.

From the Falklands Islands to Albardão, RS, Brazil, living in 55-79 m.

### Description.

Shell large sized, up to 74.6 mm in length at maturity (holotype), heavy, strongly lamellate. Spire moderately

high, up to 6, broad, strongly shouldered, teleoconch whorls. Suture adpressed. Protoconch unknown (broken).

Axial sculpture of teleoconch whorls consisting of strongly raised, thin lamellae, more strongly developed on shoulder, producing long, narrow, spinelike projections. First whorl with 8 lamellae, second to fourth with 8 or 9, penultimate with 10, last whorl with 13 lamellae. Other axial sculpture of numerous, fine, narrow, growth striae. Spiral sculpture consisting of a single carinal cord, forming long, spinelike expansions at intersection with axial lamellae.

Aperture moderately large, broad, roundly-ovate. Columellar lip smooth, lip partially erect, adherent at adapical extremity. Outer lip weakly erect, smooth. Siphonal canal moderately short, narrow, straight, open.

Shell entirely white.

Operculum dark brown, roundly-ovate, with terminal nucleus in lower right.

Radula (in CALVO, 1987: fig. 99): Rachidian with long central cusp; lateral cusps long with small, inner lateral denticle; marginal area with several small denticles or plicae; marginal cusps short.

### Discussion.

From *Trophon plicatus* (Lightfoot, 1786) (Figs 8-10). *T. iarae* n.sp. differs in having a higher spire, and in having long, almost horizontal, narrow, carinal, open spines, while the axial lamellae in *T. plicatus* end as short to very short, mostly adapically bent, broad, open expansions. The shoulder (or sutural ramp) is broad, weakly convex, and abapically sloped in *T. iarae*, but almost horizontal and narrow in *T. plicatus*. The siphonal canal is narrower and longer relative to the shell length in *T. iarae*. *Trophon acanthodes* Watson, 1883 (Figs 6-7) also has a broad, weakly convex, sloped sutural ramp, and narrow, open, carinal spines as in *T. iarae*, but *T. iarae* differs in other aspects. The siphonal canal of *T. iarae* is twice as short, for a shell with a same number and same length of spire whorls; the axial lamellae are more obvious and broader compared to those of *T. acanthodes* which are low, or almost obsolete; the spiral sculpture is absent in *T. iarae*, while consisting of narrow, conspicuous, rounded cords in *T. acanthodes*.

The two other Magellanic species, namely *T. varians* (d'Orbigny, 1841) (Fig. 12), and *T. geversianus* (Pallas,

1774) (Fig. 11) differ in many aspects: *T. varians* has a rounded shell, smooth, almost smooth, or ornamented with coarsely woven spiral cords, without lamellae. *T. geversianus* has more or less, strong, obvious, spiral sculpture, and usually more numerous, lower, axial lamellae. *T. geversianus* also have a broader aperture. Both species have a shorter, broader, siphonal canal.

The operculum of *T. iarae* n.sp., *T. plicatus*, *T. geversianus*, and *T. varians* all have a similar morphology. The radula is also almost identical in *T. iarae*, *T. geversianus*, and *T. varians*, however, it is quite different in *T. plicatus*, in having broad, serrate, lateral cusps (POWELL, 1951; VOKES, 1992).

*Trophon acanthodes* is also different in having a narrower, triangular operculum with terminal nucleus, and a broader radula with a shorter, narrower, and more prominent central tooth.

### Etymology.

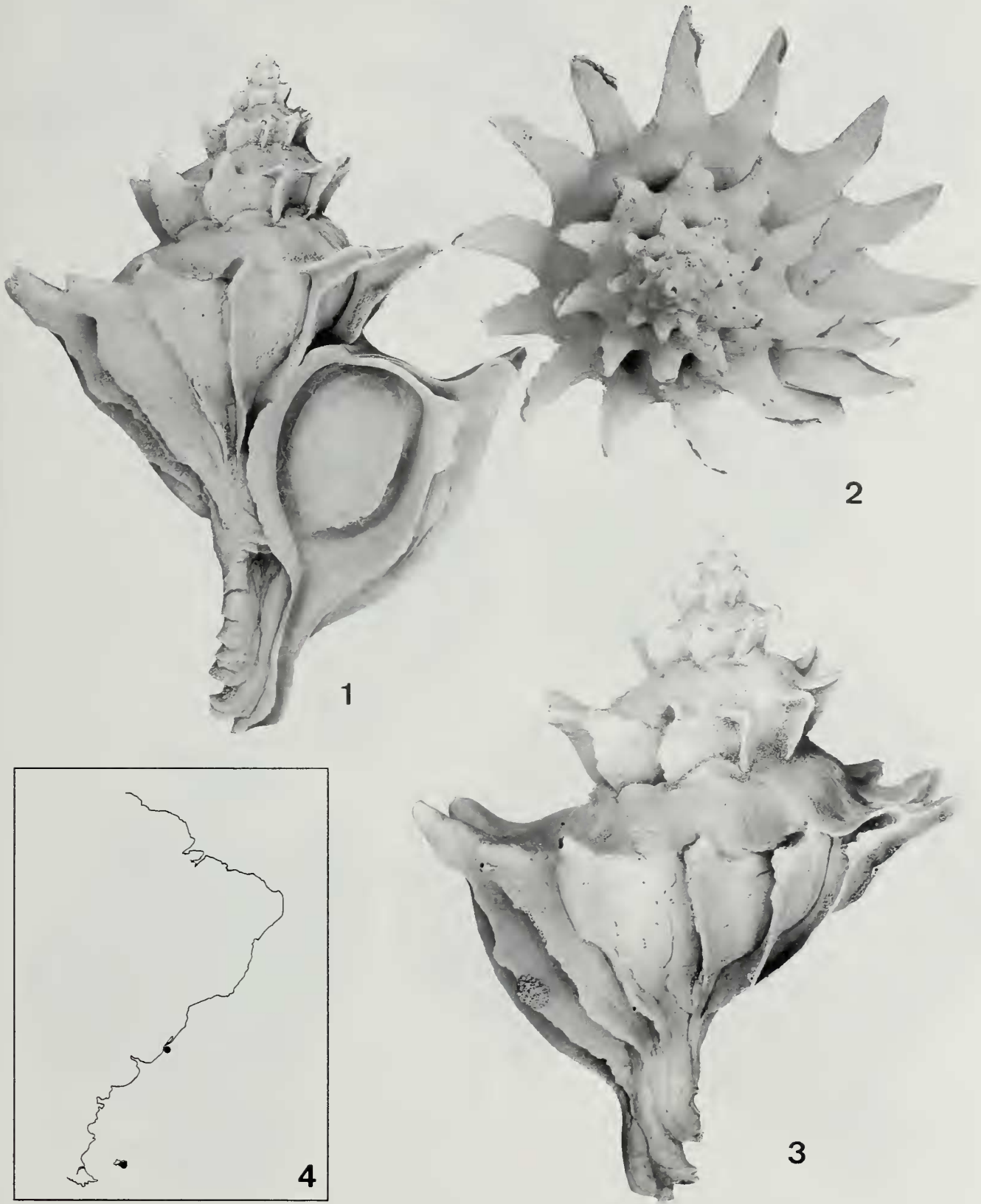
Named after Iara Swoboda Calvo, oceanographer in Museu Oceanográfico "Prof. Eliézer de C. Rios", who extracted and illustrated the radula of the holotype.

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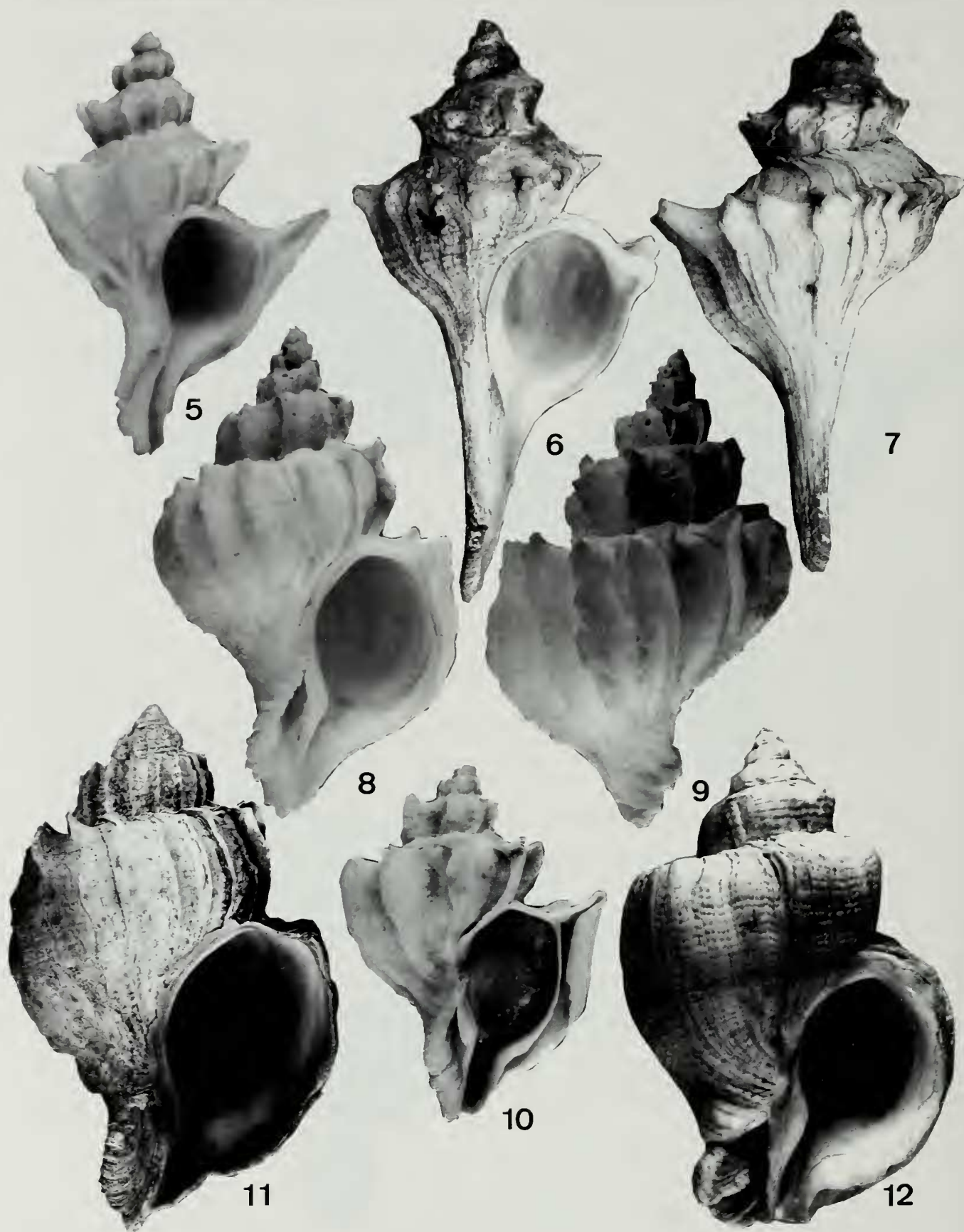
### REFERENCES

- CALVO, I.S. 1987. *Rádulas de Gastropodes Marinhos Brasileiros*. Editora da furg: 1-201.
- CERNOHORSKY, W.O. 1977. The taxonomy of some southern ocean Mollusca (Gastropoda) mainly Antarctic and Subantarctic. *Rec. Auckland Mus.* 14: 105-119.
- POWELL, A.W.B. 1951. Antarctic and Subantarctic Mollusca: Pelecypoda and Gastropoda. *Discovery Reports* 26: 47-196.
- VOKES, E.H. 1992. Argentine trophons revisited - or Dr. Powell, I owe you an apology. *Amer. Conch.* 20(2): 3-4.

**Figs 1-3.** *Trophon iarae* n.sp. Off Albardão, RS, Brazil, 55 m, Museu Oceanográfico "Prof. Eliézer de C. Rios", 74.6 x 61 mm (whitened, photographs E. VOKES), holotype n° 6731 (siphonal canal damaged after the photograph was taken). **Fig. 4.** Distribution of *Trophon iarae* n.sp.







**Fig. 5.** *T. iarae* n.sp. Off Uruguay, 54 mm, paratype coll. R. Houart. **Figs 6-7.** *T. acanthodes* Watson, 1883. Off Argentina, 59° S, 38° W, 86 mm, coll. R. Houart. **Figs 8-9.** *T. plicatus* (Lightfoot, 1786). Rocha, Uruguay, 63.4 mm, coll. R. Houart. **Fig. 10.** *T. plicatus* (Lightfoot, 1786). Rocha, Uruguay, 34.4 mm, coll. R. Houart. **Fig. 11.** *T. geversianus* (Pallas, 1774). Straits of Magellan, 93 mm, IRSNB IG 10591. **Fig. 12.** *T. varians* (d'Orbigny, 1841). Patagonia, 76 mm, syntype MNHN.